



STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

NICK A. KHOURI
STATE TREASURER

December 16, 2015

Mr. Curt Guyette
ACLU of Michigan
2966 Woodward Ave.
Detroit, MI 48201

Dear Mr. Guyette:

This notice is issued in response to your request dated September 29, 2015, which you submitted under the Freedom of Information Act (FOIA), MCL 15.231 *et seq.* Your request was submitted by electronic mail, and pursuant to section 5(1) of the FOIA, MCL 15.235(1), considered received in the Department of Treasury (Department) on September 30, 2015. As set forth in the Department's October 7, 2015 notice, a statutory extension of time to respond was taken through October 21, 2015.

Pursuant to section 4(1) of the FOIA, MCL 15.234(1), a subsequent notice dated October 21, 2015, was sent indicating that a deposit was required prior to processing your request. On November 13, 2015, this office received notification from the Department's Office of Financial Services that your deposit in the amount of \$813.63 had been received and processed.

You have requested that which you describe as the following records, documents and any other related materials covering the period from January 1, 2011 to June 30, 2014:

- 1) All reports, studies, analyses, memoranda, and similar records evaluating the suitability and/or feasibility of using the Flint River as a source of municipal drinking water.
- 2) All reports, studies, analyses, memoranda and similar records that include evaluations of the economic impact of using the Flint River as a source of municipal drinking water.
- 3) All documents, reports, memoranda and similar records involving permit applications and waivers related to the use of the Flint River as a municipal water source.
- 4) All communications, including but not limited to electronic communications, sent and received by the Michigan Department of Treasury, or its agents, related to the use or potential use of the Flint River as a municipal water source and/or the water quality of the Flint River. Included in this request are all communications containing information, comments, and opinions about the use of the Flint River as a municipal water source, the economic impact of using the Flint River as a municipal water source, the economic impact of using the Flint River as a municipal water source as well as communications related to any permitting process involving the Flint River. This request for communications includes, but is not limited to, all communications with any elected or appointed government officials; and any unit of municipal, county, state or federal government regarding or related to items (1), (2), and (3) listed above.

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Your request is granted in part and denied in part.

As to the partial granting of your request, to the extent we understand your description, and to the best of the undersigned's knowledge, information, and belief, the non-exempt public records responsive to your request, consisting of 344 pages, which the undersigned certifies are in the form the items exist in the Department, are enclosed. Please be informed that after a thorough search of Department records for those responsive to your request, we have determined that the majority of records which exist in the Department pertain to DWSD and/or KWA (Karegnondi Water Authority). However, in an effort to be cooperative, we have included records which reference the Flint River.

As to the partial denial of your request, based on the exemption outlined below, certain records are exempt from public disclosure. Section 13(1)(m) of the FOIA, MCL 15.234(1)(m) of the FOIA provides, in pertinent part, that a public body may exempt from disclosure as a public record under this Act communications and notes within a public body or between public bodies of an advisory nature to the extent that they cover other than purely factual materials and are preliminary to a final agency determination of policy or action. This exemption does not apply unless the public body shows that in the particular instance the public interest in encouraging frank communication between officials and employees of public bodies clearly outweighs the public interest in disclosure. The public interest in encouraging frank communications among the Department's employees clearly outweighs the public interest in disclosure in this instance. Employees are engaged in exchanging their frank and candid thoughts. These issues call for the informed recommendations of staff, unfettered by third party interference. In developing these recommendations, employees must be able to freely consider all sides of the issues. Staff must be allowed to freely deliberate and debate options as part of this process leading to a final action by the Department. Protecting the integrity of these frank and candid discussions benefits the public, where the final decision involves state resources and the regulation of these resources. The public would be ill-served if employees working on this issue were discouraged or hindered in expressing their opinions and thoughts during the preliminary stages of the process. Staff members must be assured that their advisory expressions will not be disseminated publicly, resulting in the public mistaking staff opinions for Department policy. Finally, the public is entitled to a final Department determination based on the ultimate decision-makers' reliance on Department employees' full, frank, and considered discussions on all options. Accordingly, pursuant to section 13(1)(m) of the FOIA, and based on the reasons stated above, the following records are exempt from disclosure and have been withheld.

E-mail dated November 7, 2012; from: Richard Cline; to: Edward Koryzno; cc: Randall Byrne; Subject: Flint Water Supply Assessment SOW Draft; with attachment

E-mail dated November 9, 2012; from: Richard Cline; to: Tom Falik; cc: Edward Koryzno, Randall Byrne; Subject: Flint Water Supply Assessment Draft III; with attachment

E-mail dated November 12, 2012; from: Tom Falik; to: Richard Cline; cc: Edward Koryzno, Randall Byrne; Subject: RE: Flint Water Supply Assessment Draft III; with attachment

E-mail dated November 13, 2012; from: Richard Cline; to: Edward Koryzno, Randall Byrne; cc: Tom Falik; Subject: Flint Water Supply Assessment SOW; with attachment

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E-mail dated November 13, 2012; from: Richard Cline; to: Tom Falik; cc: Edward Koryzno; Randall Byrne; Subject: Draft Flint Water Supply Assessment SOW; with attachment

E-mail dated November 14, 2012; from: Tom Falik; to: Edward Koryzno; cc: Randall Byrne, Richard Cline, Roger Fraser, Bruce Hanses; Subject: RE: Draft Flint Water Supply Assessment SOW; with attachment

E-mail dated April 16 2013; from: Andy Dillon; to: Dan Wyant; cc: Brom Stibitz, Thomas Saxton, Dennis Muchmore, John Roberts; Subject: DEQ Position - KWA

Pursuant to section 4 of the FOIA, MCL 15.234, the final actual cost to process your request is calculated below. Please mail your check for the remainder due, made payable to the State of Michigan, along with the enclosed a copy of this letter to: Michigan Department of Treasury, P.O. Box 30716, Lansing, MI 48909.

<u>Itemized Costs</u>	<u>Amounts</u>
Search, retrieve, and review records:	
4 hours at \$67.45 per hour	\$ 269.80
2 hours at \$47.00 per hour	\$ 94.00
4 hours at \$38.42 per hour	\$ 153.68
2 hours at \$41.11 per hour	\$ 82.22
Review, and separate exempt from non-exempt records:	
1 hour at \$77.73 per hour	\$ 77.73
2 hours at \$59.36 per hour	\$ 118.72
Copying costs:	
1 hour at \$20.66 per hour	\$ 20.66
344 pages at \$.10 per page	\$ 34.40
Total	\$ 851.21
Less Deposit	<u>813.63</u>
REMAINDER DUE	\$ 37.58

As to the partial denial of your FOIA request, the Department is obligated to inform you that under section 10 of the FOIA, MCL 15.240 you may do the following:

1. Appeal this decision in writing to the State Treasurer, Michigan Department of Treasury, P.O. Box 30716, Lansing, MI 48909. The writing must specifically state the word "appeal" and must identify the reason or reasons you believe the partial denial should be reversed. The Department must respond to your appeal within 10 business days of its receipt. Under unusual circumstances, the time for response to an appeal may be extended by 10 business days.
2. File an action in an appropriate court within 180 days after the date of the final determination to partially deny the request. If you prevail in such an action, the court is to award reasonable attorney fees, costs, and disbursements, and possible damages.

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Pursuant to section 4(4) of the FOIA, MCL 15.234(4), the Department's FOIA procedures, guidelines and written summary can be found on the Department's website at the following link: <http://michigan.gov/treasury/0,4679,7-121-72699-357926--,00.html>.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carla M. Robert".

Carla M. Robert
FOIA Coordinator

Enclosures

Accounting: Agy: 271 Index: 11093 TC: 191 C.Obj: 6155 A.Obj: 0999

Byrne, Randall (Treasury)

From: Falik, Tom A. (DTMB)
Sent: Wednesday, November 14, 2012 10:56 AM
To: DGuastel@tyjt.com
Subject: Statement of Work (SOW) #271Q3209
Attachments: 271Q3209 Flint Water Supply Assessment SOW 11-14-12.docx

Mr. Guastel,

Good morning. The State of Michigan, Department of Treasury is seeking proposals for Municipal Water Supply Assessment Services (City of Flint). All the technical requirements desired for this particular RFP are referenced in Article 1 of the attached document. A proposal is due Wednesday, November 21, 2012 at 3:00 P.M. Eastern Time.

The State of Michigan looks forward to your proposal.

I will follow-up with a phone call to confirm receipt.

Sincerely,

Tom Falik
State of Michigan
Department of Treasury
Purchasing Section
Phone: (517) 373-3185



STATE OF MICHIGAN
Department of Treasury
Purchasing Section

Statement of Work (SOW) No. 271Q3209
 Municipal Water Supply Assessment

Buyer Name: Thomas Falik
 Telephone Number: 517-373-3185
 E-Mail Address: FalikT@michigan.gov

Estimated Timeline:

Key Milestone:	Date:
Issue Date	11/14/2012
Questions Due	11/16/2012
Bid Due Date	11/21/2012
Anticipated Contract Start Date	11/26/2012

SOW Checklist for Contractor Proposal Contents and Responsiveness

This checklist is provided for your convenience to help remind Contractors of the important requirements of the SOW. The list may not be all inclusive. The Contractor is responsible to read the SOW and submit all the required responses. If Contractors have any questions concerning these requirements please contact the Buyer listed on the front page of this SOW document.

Article 1 and Attachment A:

_____ Responses have been provided for all items requested in Article 1, Statement of Work, as requested. Technical Proposal Requirements have been met and responses are included within the format designated by the State in Article 3.

_____ Price Proposal, Article 1, Section 1.061, for the proposal has been included in Contractor's proposal, according to the instructions laid out in Article 3 and using the format in Attachment A (if required in 1.061).

Article 3:

_____ The complete proposal was submitted to the appropriate location and on time in an electronic format.

_____ Responses have been provided for all items requested in Article 3 and includes signature by an individual authorized to legally bind Contractor's company.



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Attachment A, Pricing



Article 1 – Statement of Work (SOW)

Note to Contractors: Proposals must include detailed responses to all tasks as requested in Article 1. Contractors should provide thorough responses to each task, or, when appropriate, state their agreement that the Contractor will provide the requested services. Contractors are encouraged to provide detailed responses in order to allow the State to fully evaluate the Contractor's capabilities.

Throughout this SOW, language referring to Contract or Contractor(s) refers to any Contract awarded from this SOW. This SOW in itself is not to be construed as a Contract.

1.010 Project Identification

1.011 Project Request

This is an SOW for a Municipal Water Supply Assessment on behalf of the Department of Treasury and the City of Flint in Genesee County. This is a formal request to prospective Contractors to solicit bids or price quotations. Contractors must submit written proposals according to the instructions contained within this document, discussing how they will meet the specific requirements.

Any awarded Purchase Order(s) between the State and any awarded Contractor(s) is a separate document, whose terms are limited by the Contract.

1.012 Background

The Treasury Department is charged with monitoring, oversight and provision of assistance to local units of government under various statutes, including but not limited to, the Home Rule City Act (Act 279 of 1909), the Uniform Budgeting and Accounting Act (Act 2 of 1968), and the Glenn Steil State Revenue Sharing Act (Act 140 of 1971). In providing such monitoring and assistance to local units of government, the Treasury Department strives to preserve the capacity of local units to provide those services essential to the public health, safety and welfare of the citizens of this State.

The City of Flint is currently supplied potable water from the Detroit Water and Sewerage Department (DWSD). This supply is provided through a single 72-inch water main that terminates at a master meter. The City of Flint's water treatment plant uses the Flint River as a back-up and redundancy supply source to the DWSD supply, as required by the Michigan Department of Environmental Quality (MDEQ). The City of Flint also provides potable water to Genesee County downstream of the DWSD master meter.

The newly formed Karegnondi Water Authority (KWA) plans to construct a raw water supply system that will feed Flint's water treatment plant with water directly from Lake Huron. The Flint water treatment plant could be upgraded to accommodate and treat this new raw water source. DWSD has also proposed alternatives to the existing agreement with the City of Flint that could also be pursued.

A Contractor is needed to provide services to the Department of Treasury and the City of Flint upon request of the Treasury Department. The Department of Treasury is requesting a Contractor provide an analysis of the water supply options for the City of Flint to assist the Department of Treasury and the City of Flint in determining the best available option.

1.020 Scope of Work and Deliverables

1.021 In Scope



The Contractor must provide Water Supply Assessment as requested by the Department of Treasury. These services will include data collection and review, an engineering evaluation and the generation of recommendations.

Bidder Response:

1.022 Work and Deliverable

Contractor must provide Deliverables/Services and staff, and otherwise do all things necessary for or incidental to the performance of work, as set forth below:

A. Data Collection and Review:

1. Provide all labor, materials and equipment to fully perform the work of data collection and review for an assessment of water supply options for the City of Flint.

Bidder Response:

2. Perform an analysis and comparison of the KWA and DWSD proposals that includes all capital, financing, operational and maintenance costs.

Bidder Response:

3. Prepare and submit for Department of Treasury and City of Flint review a preliminary report on the findings by Thursday, December 20, 2012; additionally, a final inspection report of findings and recommendations must be presented no later than January 8, 2013 (also see Section 1.022.E).

Bidder Response:

B. Data collection and analysis services must include the following:

1. DWSD's proposed contract with the City of Flint.

Bidder Response:

2. DWSD's proposed water rates with the City of Flint.

Bidder Response:

3. Other relevant DWSD documents or information regarding the provision of municipal water to the City of Flint.



Bidder Response:

4. KWA's proposed contract with the City of Flint.

Bidder Response:

5. Any engineering or environmental reports that evaluate KWA's proposal to provide municipal water to the City of Flint.

Bidder Response:

6. Other relevant KWA documents or information regarding the provision of municipal water to the City of Flint.

Bidder Response:

C. Engineering Evaluation:

1. Evaluation and recommendation of a potential water supply for the City of Flint must be based upon: 1) Cost; 2) System redundancy and reliability; and 3) The capacity for the Flint River to supply all of the City of Flint's water needs.

Bidder Response:

2. Evaluation and recommendation of a potential water supply for the City of Flint will also be based upon any additional criteria mutually agreed upon by the Department of Treasury, the City of Flint and the Contractor.

Bidder Response:

- D. The Contractor must carry out its operations in strict accordance with local, state, federal regulations.

Bidder Response:

- E. Provide electronic copies (in the most suitable format) of the final inspection report of findings and recommendations to the City of Flint and the Department of Treasury, Office of Fiscal Responsibility by January 8, 2013.

Bidder Response:



1. Describe format of findings and recommendations. Format should also include a description of all work performed.

Bidder Response:

- a) Preliminary inspection report of findings and recommendations must be presented by December 20, 2012.

Bidder Response:

- b) Final inspection report of findings and recommendations must be presented no later than January 8, 2013.

Bidder Response:

2. Describe electronic formats available.

Bidder Response:

- F. Submit findings and recommendations to an independent Quality Control and Quality Assurance (QA/QC) review process for validation.

Bidder Response:

1. Provide electronic copies (in the most suitable format) of the independent QA/QC review to the City of Flint and the Department of Treasury, Office of Fiscal Responsibility by January 8, 2013, with the final inspection report.

Bidder Response:

1.030 Roles and Responsibilities

1.031 Contractor Staff, Roles, and Responsibilities

1. Contractor must identify staff who will be involved in the project, including the name of each individual, work locations, and detailed descriptions of their roles and responsibilities.

Note: If an overall organization chart has been developed, provide a reference to that chart as well.
Note any part-time personnel.

Bidder Response:



2. Specific work schedules for this project are Monday through Friday, 8:00 a.m. to 5:00 p.m. Eastern Time; however, possible night and weekend hours may be required.

Bidder Response:

1.032 State Staff, Roles, and Responsibilities

1. Contract Compliance Inspector (CCI): The State's CCI provides oversight and monitoring of the selected Contractor's adherence to the terms and conditions of this project and the Contract.
2. Project Manager: The State's Project Manager will monitor the project activities.

1.040 Project Plan

1.041 Project Plan Management

1. The Contractor will carry out this project under the direction and control of the CCI or designee.
2. Although there will be continuous liaison with the Contractor team, the CCI or designee will meet quarterly as a minimum, or as requested by the CCI or designee, with the Contractor's Project Manager for the purpose of reviewing progress and providing necessary guidance to the Contractor in solving problems which arise.
3. Contractors must provide a sample project plan with proposal for the deliverables proposed in section 1.022. The plan must include the details noted in section 1.041.4.

Contractor Response:

- a. Within five working days of Contract or purchase order award, the Contractor must submit to the CCI or designee for final approval a detailed project plan. This final project plan must be in agreement with the Contractor's proposal and accepted by the State for Contract, and must include the following:
 - a. The Contractor's project organizational structure.
 - b. The Contractor's staffing table with names and title of personnel assigned to the project. This must be in agreement with staffing of accepted proposal. Necessary substitutions due to change of employment status and other unforeseen circumstances may only be made with prior approval of the State.
 - c. The project breakdown showing sub-projects, activities and tasks, and resources required and allocated to each (e.g., estimated levels of effort for each level of personnel for Contractor personnel, including any contractual employees, and State personnel).

1.042 Reports

1. The Contractor must submit written bi-weekly summaries of progress which outline the work accomplished during the reporting period; work to be accomplished during the subsequent reporting period; problems, real or anticipated, which should be brought to the attention of the CCI; and notification of any significant deviation from previously agreed-upon work plans.



1.050 ~~Acceptance – Deleted – N/A~~

1.060 ~~Proposal Pricing~~

1.061 Proposal Pricing

1. For authorized Services and Price List, see Attachment A (Price Proposal). Please complete Attachment A and submit with proposal.
2. Bidders are encouraged to offer quick payment terms (i.e. _____% discount off invoice if paid within _____ days). This information can be noted on the Bidders price proposal (see Attachment A). This may be a factor considered in the award decision.
3. Contractor's out-of-pocket expenses are not separately reimbursable by the State or local unit of government unless, on a case-by-case basis for unusual expenses, the State has agreed in advance and in writing to reimburse Contractor for the expense at the State's current travel reimbursement rates. See www.michigan.gov/dtmb for current rates.
4. Invoicing and payment must occur per Article 2 (Compensation) of Indefinite Scope Indefinite Delivery Contract No. 263 (Discretionary Contract Number 00263) and Attachment A.

1.070 ~~Additional Requirements – Deleted – N/A~~

**Article 2. Terms and Conditions**

The terms and conditions of Indefinite Scope Indefinite Delivery Contract No. 263 (Discretionary Contract Number 00263) and apply to this SOW and any resulting Contract or purchase order.



Article 3 – Proposal Process

3.010 Introduction

3.011 Pre Bid Meetings – Deleted – N/A

3.012 Communications – Deleted – N/A

3.013 Questions

Questions concerning the SOW are to be submitted, in writing, no later than 3:00 p.m. Eastern Time on November 16, 2012 to:

Thomas Falik
Michigan Department of Treasury
430 West Allegan
Lansing, MI 48922
Email: FalikT@michigan.gov

All questions must be submitted in writing and sent as an attachment in Microsoft Word or Rich Text Format (RTF). Changes to the SOW and answers to questions will be prepared as an addendum and issued to Contractors. Any issued addendum officially revises and supersedes the original SOW. Any addenda will be issued approximately November 19, 2012.

3.020 Award Process

3.021 Reservations

(a) The State reserves the right to award by item, part or portion of an item, group of items or total proposal, to reject any and all proposals in whole or in part, if, the best interest of the State will be so served.

3.022 Award Decision

Award recommendation will be made to the Administrator of Office of Departmental Services. Pending award recommendation approval, a purchase order will be issued authorizing services to commence.

3.030 Proposal Details

3.031 Complete Proposal

To be considered, each Contractor must submit a COMPLETE proposal in response to this SOW, using the format specified. No other distribution of proposals is to be made by the Contractor. The proposal must state how long it remains valid. This period must be at least 15 days from the due date for responses to this SOW.

3.032 Efficient Proposal

Each proposal should be prepared simply and economically, providing a straightforward, concise description of the Contractor's ability to meet the requirements of the SOW. Emphasis should be on completeness and clarity of content in the format specified.

3.033 Proposal Format



The following information must be included in all proposals. Contractors must respond to all sections of the SOW. Proposals should be formatted to include each of the following sections, which should be clearly identified using the same format as the SOW is written in and with the appropriate headings:

Article 1 – Statement of Work – Contractor must respond to each section. Proposal must include detailed responses to all tasks as requested in Article 1. Contractors must copy these sections, and provide Contractor's response in the area specified for "Contractor Response". This area has been designed to expand as necessary

3.040 Submitting Bids and Proposals

3.041 Proposal Submission

Proposal is due November 21, 2012 at 3:00 p.m. Eastern Time or as soon as possible. Submit an electronic copy of your proposal via e-mail to FalikT@michigan.gov in a Microsoft Office format. If an electronic copy of the proposal is not available, it can be mailed to the following address:

Michigan Department of Treasury
Purchasing Section
Attn: Thomas Falik
430 West Allegan
Lansing, MI 48922

**SIGNATURE AUTHORITY**

I/We certify that the undersigned is authorized to submit bids/quotations on behalf of _____ The information provided about _____ ability to provide the goods and/or services outlined in this SOW document is true and accurate. I/We understand that our product and/or service offerings must be in compliance with all requirements of this SOW document.

Name of Contractor/Supplier

Address of Contractor/Supplier

Telephone and Fax No. of Contractor/Supplier

E-mail Address of Contractor/Supplier

Signature of Contractor/Supplier's Authorized Representative

Title of Supplier Representative

Date

Additional Signature
Contractor/Supplier's Authorized Representative

Title of Supplier Representative

Date



Attachment A. Price Proposal

Bidders are encouraged to offer quick payment terms (i.e. _____% discount off invoice if paid within _____ days). This information can be noted on the price proposal. This may be a factor considered in the award decision.

Provide the price per deliverable for the proposed services in section 1.022.	
Deliverable	Price
A. <u>Municipal Water Supply Assessment</u>	
1. Data Collection and Review	\$
2. Engineering Evaluation	\$
3. Provide Results of QA/QC Review	\$
4. Provide Copies of Findings and Review Findings	\$
Grand Total	\$
B. <u>Optional Services</u>	
1.	\$
2.	\$
3.	\$
4.	\$
5.	\$

STATE OF MICHIGAN
Department of Treasury

Indefinite-scope, Indefinite-
delivery Contract No. 00383

City of Flint Water Supply Assessment

PRELIMINARY FINDINGS

Tucker, Young, Jackson, Tull, Inc.

December 21, 2012

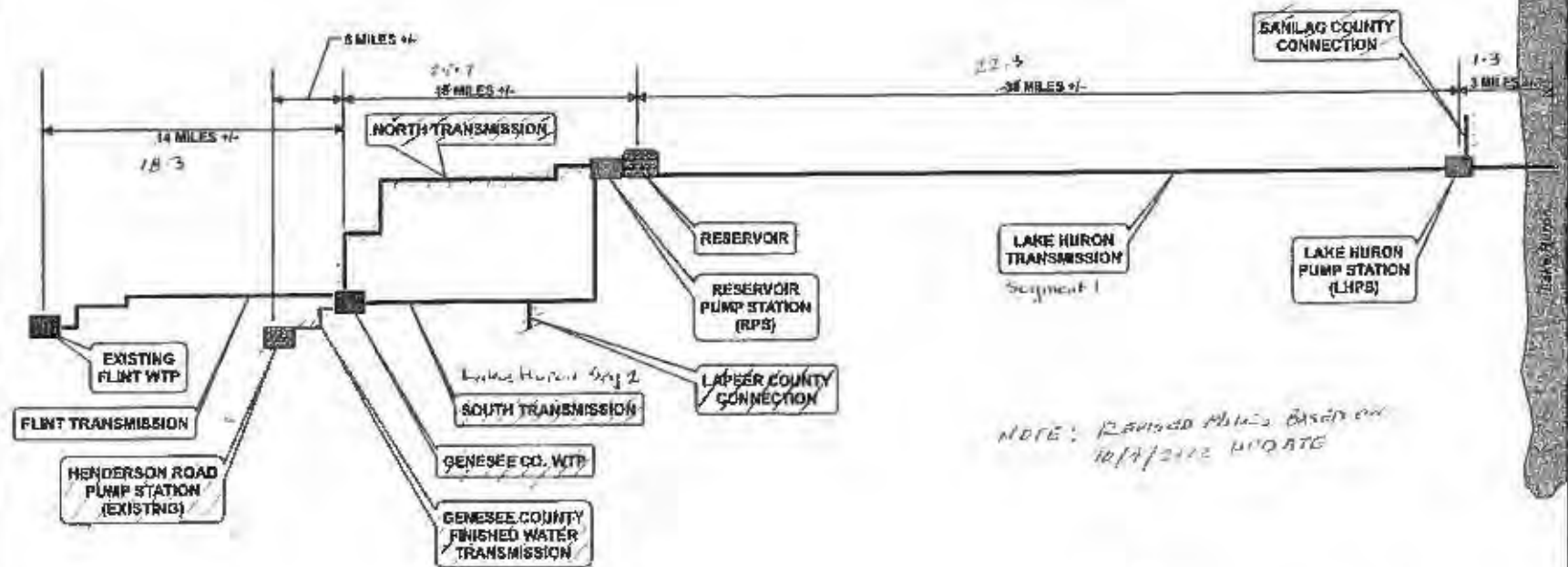
Presentation Outline

- ▣ Flint Water Supply Options
- ▣ Data Collection
- ▣ Basis of Analysis
- ▣ Operation & Maintenance
- ▣ Financial Evaluation
- ▣ Other Considerations

Flint Water Supply Options

KWA Supply

KAREGNONDI WATER AUTHORITY LAKE HURON WATER SUPPLY ROUTE SCHEMATIC



NOT TO SCALE

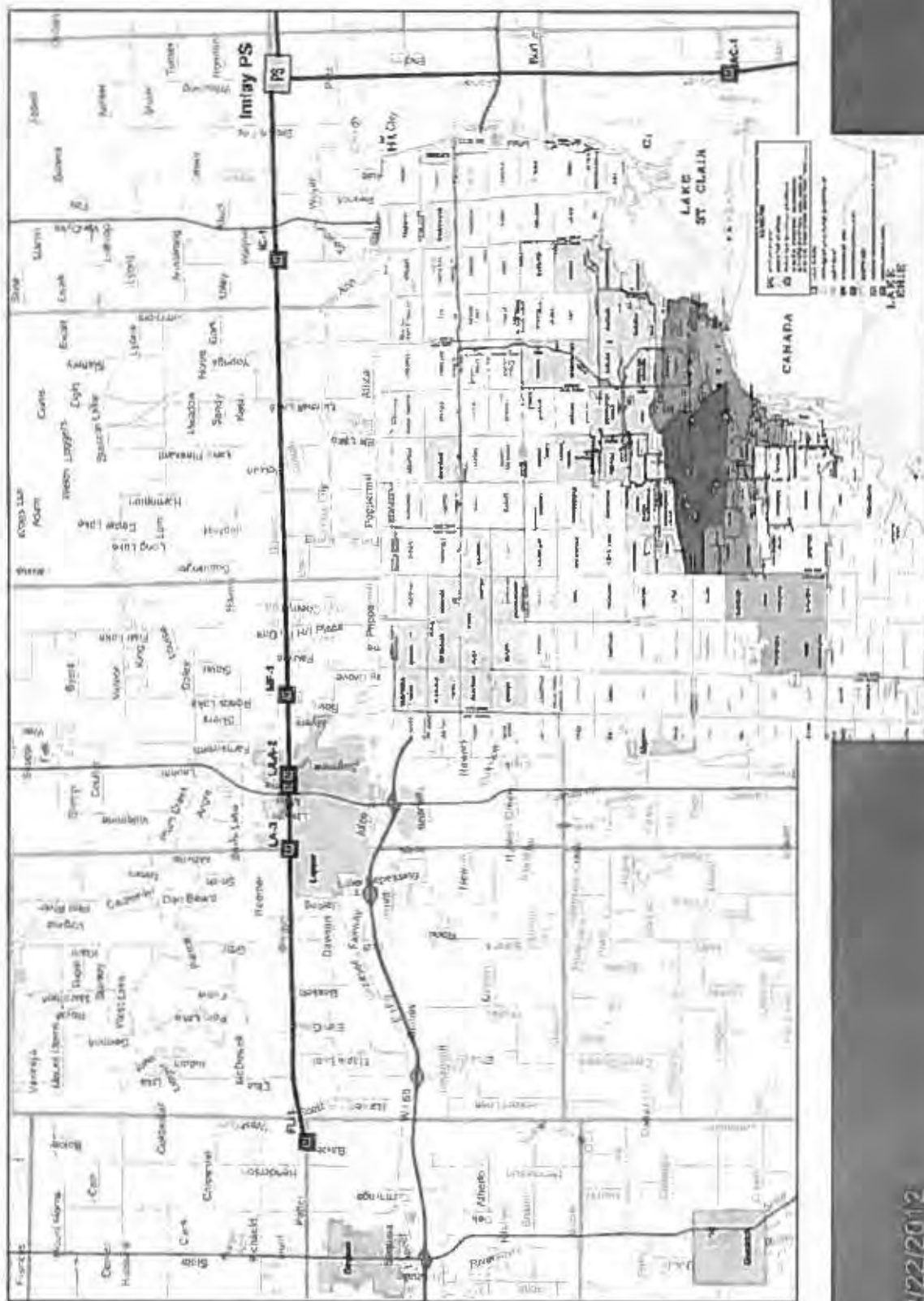
WADETRIM

555 South Saginaw Street
Suite 201
Flint, Michigan 48902
800.841.8342
www.wadetrin.com

KWA Supply

- ▣ 60 MGD Raw Water Transmission System
- ▣ Flint WTP Treatment Capacity:
 - 18 MGD Maximum Day
 - 12 MGD Average Day

DWS D Supply



DWSD Supply

- ▣ Multiple Supply Options Offered
- ▣ Supply for current Master Meter at Potter and Baxter
 - 18 MGD Maximum Day Customer
 - 12 MGD Maximum Day Customer/ Flint WTP
Capacity: 6 MGD Maximum Day, 4 MGD Average
Day (Blending)
 - 8 MGD Maximum Day Customer/ Flint WTP
Capacity: 10 MGD Maximum Day, 4 MGD Average
Day (Blending)

DWSD Supply

- ▣ Supply from Master Meter at Imlay Station
 - 12 MGD Maximum Day Customer/ Flint WTP
Capacity: 6 MGD Maximum Day, 4 MGD Average Day
(Blending)
 - 8 MGD Maximum Day Customer/ Flint WTP
Capacity: 10 MGD Maximum Day, 4 MGD Average
Day (Blending)

DWSD

Supply Options

2013 – Model Contract

Description	Average Day Demand	TYJT Estimate
18 MGD Maximum Day Customer - P&B	12 MGD	\$16.37/MCF
12 MGD Maximum Day Customer - P&B	8 MGD	\$16.31/MCF
8 MGD Maximum Day Customer - P&B	8 MGD	\$12.68/MCF
12 MGD Maximum Day Customer - Imlay	12 MGD	\$14.38/MCF
8 MGD Maximum Day Customer - Imlay	12 MGD	\$11.11/MCF

Flint River Supply

- ▣ Flint Upgrades Existing WTP
- ▣ Supply from Flint River
- ▣ Infrastructure Improvements Required for the Dams and WTP

Data Collection

Data Collected

- ▣ Meetings
 - DWSD November 19, 2012
 - Flint/KWA November 20, 2012
 - Minutes/information requests provided

Data Collected

▣ KWA/Flint

- Lake Huron Water Supply Karegnondi Water Authority (KWA) 9/09
- Analysis of the Flint River as a Permanent Water Supply for the City of Flint 7/11
- Cost Comparison, KWA vs. DWSD Letter to Mr. Kurtz, 10/31/12
- Lake Huron Supply KWA, Appendix 20 Update 10/4/12
- KWA Articles of Incorporation
- KWA Bylaws
- KWA Raw Water Supply Contract
- Flint WTP Statement of Revenues and Expenditures 09' - 12'
- GCDC Division of Water and Waste Services Financial Statements 03' - 11'
- Assorted emails with further clarification of questions and documentation

Data Collected

- ▣ DWSD
 - Historical Rates and Charges to Flint 04' - 13'
 - Historical Rates and Charges to Flint with Hypothetical Model Contract 10' - 13'
 - 2013 Rates and Charges for the following options:
 - ▣ 18 MGD Maximum Day Customer at Potter & Baxter
 - ▣ 12 MGD Maximum Day Customer at Potter & Baxter (Flint Blending*)
 - ▣ 8 MGD Maximum Day Customer at Potter & Baxter (Flint Blending*)
 - ▣ 12 MGD Maximum Day Customer at Imlay (Flint Blending*)
 - ▣ 8 MGD Maximum Day Customer at Imlay (Flint Blending*)
- *Flint Blending based on DWSD supplying 2/3 and Flint 1/3 of 12 MGD ADD
- Assorted emails with further clarification of questions and documentation

Basis of Analysis

Benchmarking Comparisons

- ▣ KWA O&M Inflation Factor
 - Southeastern Oakland County Water Authority (SOCWA)
 - Ypsilanti Community Utility Authority (YUCA)
- ▣ DWSD and Flint WTP Rate Inflation Factor
 - Lansing
 - Grand Rapids
 - Saginaw

Capital Financing

- ▣ Revenue Bonds
 - Checked Rating Agencies
 - Identification of Bondholder Requirements

Cost of Construction

- ▣ KWA October 2012 Preliminary Engineering Report
- ▣ Construction Contractors
- ▣ Comparison of KWA Estimate with Other Projects
 - ▣ Pumping Stations
 - ▣ Transmission Mains
 - ▣ Engineering Fee

Operations & Maintenance

Analysis Process - O&M Inflation

KWA

- ▣ KWA Evaluation: 5% Annually
- ▣ GCDC: 10.5%
- ▣ SOCWA: -- %
- ▣ YUCA: 0.73%
- ▣ Annual Inflation Factor Used for KWA: 5%

Analysis Process - Finished Water Rate Inflation DWSD

- ▣ DWSD - From Potter/Baxter: 4.4%
 - From Imlay (hypothetical): 2.9%
- ▣ Lansing: 4.63% 2005-2012
- ▣ Grand Rapids: 1.57% 2004-2011
- ▣ Saginaw: 6.96% 2004-2011
- ▣ Annual Rate Inflation Factor Used for DWSD at Potter/Baxter or Imlay: 4.4%

Analysis Process - O&M Inflation

Flint WTP

- ▣ Analyzed Major O&M Costs
 - Labor
 - Power
 - Chemicals
 - Residuals
- ▣ Evaluated Power, Chemicals, Residuals, Others
 - Actual Flint WTP O&M
 - Flint River Report 7/11
 - KWA Report 2/09
- ▣ Labor Increased by 67% per Flint WTP
- ▣ Annual Inflation Rate Used: 4.51 %

Financial Evaluation

Capital Financing with Revenue Bonds

- ▣ 25 year term with level debt service
- ▣ 5% Interest Rate
- ▣ 3 Years Capitalized Interest
- ▣ 10% Reserve for Bondholders
- ▣ 3% Interest on Reserve
- ▣ S&P Rating A Without Insurance
- ▣ Bond Issuance Costs
 - KWA 2.25% of Principal Borrowed
 - Flint 3.0% of Principal Borrowed

KWA Construction

- ▣ Project Elements
 - Intake & Crib
 - Two Pumping Stations
 - Transmission system
 - ▣ 48 Miles of 60-inch
 - ▣ 18.3 Miles of 36-inch

KWA Construction

- ▣ Intake and Crib
 - October 2012 KWA Estimate: \$22,076,850
 - Engr./Legal/Admin/Contingency @ 25%:
\$5,519,213 (Design 90% complete)
 - Property: \$2,300,000
 - Total Cost: \$29,896,063

KWA Construction

Pumping Stations

Description	KWA Estimate		TYJT Estimate	
Pumping Stations	\$ 24,618,080		\$ 54,573,314	
Land for IPS & Reservoirs	—		75,000	
Subtotal	\$ 24,618,080		\$ 54,648,314	
Engineering, Legal, Admin. & Contingency	25%	6,154,520	30%	16,394,494
Pumping Stations Subtotal	\$ 30,772,600		\$ 71,046,808	

KWA Construction

Transmission Mains

Description	KWA Estimate		TYJT Estimate	
Transmission Mains	\$ 166,202,316		\$ 167,419,530	
Engineering Legal, Admin & Contingency for construction	25%	41,550,579	30%	50,225,859
Subtotal	\$ 207,752,895		\$ 217,645,389	
Easements			1,166,170	
Transmission Subtotal	\$ 207,752,895		\$ 218,811,559	

KWA Construction

Engineering

Description	KWA Estimate	TYJT Estimate
Design Engineering/PS and Transmission		\$ 16,939,581
Construction Management @5% of Project Cost Estimate of \$217,645,389		14,434,609
Administration		349,440
Legal/Easement/Contract Documents		831,000
Engineering Subtotal		\$ 32,554,63

KWA Construction

Cost Comparison

Description	KWA Estimate	TYJT Estimate
Intake/Crib	\$ 27,596,063	\$ 27,596,063
Pump Stations	\$ 30,772,600	\$ 71,042,808
Transmission Mains	\$ 207,752,895	\$ 217,645,389
Power	\$ 4,000,000	\$ 4,000,000
Redundant Power for PS		\$ 1,273,200
Land for LHPS	\$ 2,300,000	\$ 2,300,000
Design Engineering/PS and Transmission		\$ 16,939,581
Construction Management		\$ 14,434,410
Administration		\$ 349,440
Legal/Easement/Contract Documents		\$ 831,000
Easements		\$ 1,166,170
Total	\$ 272,421,558	\$ 357,578,060
Flint Share @30%	\$81,726,467	\$107,273,418

Findings

Other Considerations

Other Considerations - Redundancy/Reliability

- ▣ Unfunded mandates/future regulations are more difficult to fund for smaller systems
- ▣ Separating the water systems appears to run counter to the Treasury's efforts of consolidating services (EVIP)
- ▣ The KWA and DWSD option offer nearly the same redundancy

Other Considerations - Cost

- ▣ Over the 25-year Planning Period:
 - DWSD 8 MGD supply option is less cost than the KWA supply per their analysis
 - Four DWSD options are less cost per TYJT's evaluation of the KWA cost analysis (8 MGD & 12 MGD Customer from Imlay and P&B)
- ▣ Cost analysis does not include future capital needs such as mechanical and process improvements within the period of analysis
- ▣ KWA cost estimate does not appear to include cost of redundant connections between Flint & Genesee WTPs as indicated in Flint River study
- ▣ KWA cost estimate does not appear to include IPS land and easement costs for system

Other Considerations - Cost

- ▣ KWA cost estimate does not appear to include engineering design cost and other management and administrative costs
- ▣ The emergency back up to the KWA supply requires the Flint WTP to maintain two separate treatment trains (further evaluation required to see if there are any water chemistry issues during conversions)
- ▣ Flint has indicated that they have a high water loss - this should be addressed first before sizing the KWA system for Flint's needs

Other Considerations - Cost

- ▣ The design of the KWA supply and the construction of the system has not been completed; final costs and time to complete are unknown - both can negatively impact Flint's final cost
- ▣ There is a high negative impact if the project is not completed within the three year period - payment on the bonds will be due, but revenue source is unknown

Other Considerations - Flint's Autonomy

- ▣ Flint and Genesee County are not represented on the DWSD Board of Water Commissioners
- ▣ The KWA will supply only Flint and GCDC, however Flint will have a minority vote on the KWA Board and Genesee County will have a majority vote (Board includes members not buying water to have voting authority)
- ▣ Under the DWSD option supplying Flint from Imlay will require an agreement with Flint and other DWSD customers off of the 72-inch main (Imlay, Mayfield, Lapeer)

STATE OF MICHIGAN
Department of Treasury

QUESTIONS

City of Flint Water Supply Assessment
PRELIMINARY FINDINGS

Tucker, Young, Jackson, Tull, Inc.

December 21, 2012

**Review of TYJT December 21, 2012 Presentation
City of Flint Water Supply Assessment
Prepared by Rowe Professional Services Company**

DWSD Supply (Slides 7 through 9)

1. The 8 mgd maximum day supply by DWSD options can result in periods during the summer when most of the water to meet demands will be supplied by the City from the river. To aid in maintaining a consistent water quality, softening of the water from the river should be provided with this option, greatly increasing the City's costs.
2. Upgrades to Flint's WTP and dams will be needed for options requiring blending, since the WTP will be required to provide continuous, reliable service and compliance with recent surface water treatment regulations.
3. The rates for the options analyzed are shown on Slide 9 as "TYJT Estimates". Options and rates shown are different than presented by DWSD previously.

	DWSD 11/29/2012	TYJT Estimates
18 mgd Maximum Day - P&B	\$16.24	\$16.37
12 mgd Maximum Day - P&B	\$16.30	\$16.31
8 mgd Maximum Day - P&B		\$12.68
12 mgd Maximum Day - Inlay	\$14.38	\$14.38
8 mgd Maximum Day - Inlay		\$11.11

4. Since the rates used in the analyses are shown as estimates, are they actual offers or just presented as "what if" scenarios?
5. We assume that the Inlay options are based on transfer of the 72" main through Lapeer County to Flint. The analyses show a capital cost of \$4.7 million; we assume that this is the proposed purchase / lease cost to Flint. This should be clarified along with pertinent details.
6. If the transmission main is transferred to Flint, what are Flint's responsibilities regarding service to the Lapeer County customers? If they remain DWSD customers, then Flint should receive some revenue for the use the main. It does not appear this is included in the TYJT analyses.
7. If the transmission main is transferred to Flint, we assume that the city will be responsible for the maintenance of the 50-year old main. The TYJT analysis did not include this.
8. Do the rates shown include the credit for "reliability" which had been discussed with DWSD?
9. If the point of commerce is changed from Baxter and Potter to Inlay, a new meter pit will be required. The cost of this does not appear to be included in the TYJT cost analyses.

Flint River Supply (Slide 10)

1. If any of the "blending" options are chosen, it will be necessary to upgrade the Flint WTP and dams to provide reliable, continuous service and compliance with recent surface water treatment regulations.

Data Collected (Slide 14)

1. The slide notes that Flint blending is based on DWSD supplying 2/3 and Flint supplying 1/3 of 12 MGD ADD. For the maximum day demand (18 mgd), if DWSD supplies a maximum of 8 mgd, Flint will supply 10 mgd or 56% of the total. However, such a large portion will make it more difficult to blend and achieve consistent water quality. Flint will need to soften water for these options.

Benchmarking Comparisons (Slide 16)

1. The slide subtitles are "KWA O&M Inflation Factor" and "DWSD and Flint Rate Inflation Factor". It seems appropriate to benchmark O&M costs for the KWA, because future costs of service will be dependent on how operating costs are impacted by inflation. For Flint, it does not seem appropriate that "rate inflation" from other utilities be used to determine the impact of inflation on future cost of service. Rates are impacted by inflation, but also by other factors such as debt and customer base. O&M expenses and rates are different and care should be exercised not to mix the two during analyses. The TYJT analyses apply an inflation factor (based on rates from other utilities) to the Flint WTP operating expenses, which does not seem to be consistent.
2. The KWA will supply raw water; SOCWA and YUCA both supply finished water. Regulations impact the O&M for finished water suppliers but should not impact the KWA O&M. The use of data from SOCWA and YUCA does not seem like a comparable comparison with the KWA. Finished water suppliers will have increased costs due to regulatory compliance, which really are not due to "inflation" of the costs of wages, power, chemicals, etc.
3. DWSD has a history of rates to Flint and other suburban wholesale customers. Rates tend to be quite specific to each utility, based on much more than just the costs of operating and maintenance. It appears that DWSD historical rates have not been considered in projecting future DWSD rate increases.

Capital Financing (Slide 17)

1. KWA bonds are planned to be general obligation bonds, backed by member counties.

O&M Inflation Factor (Slide 20)

1. SOCWA and YUCA are finished water suppliers; ever-changing regulatory requirements will impact their operating costs more than a raw water supplier, such as KWA.
2. KWA will be a supplier of raw water. O&M costs should primarily be limited to power and labor, with a little chemical use for zebra mussel control. KWA will not provide treatment of the water.

3. The KWA study assumed power, labor, and chemical costs increase at an annual average of 3%. TYJT indicated this is too low and suggested 5%.
4. Following are examples of historical inflation, which support the 3% as a reasonable assumption for O&M expenses (not rates)
 - a. Labor- GDCD-WWS labor costs have increased at an annual average rate of 2.5% since 2003
 - b. Electricity Rates in Michigan (per U.S. Energy Information Administration) have increased an average of 3.2% since 1999.
 - c. The U.S. Bureau of Labor Statistics indicates that the inflation rate over the last 30 years has been an average of 2.8%.

Finished Water Rate Inflation (Slide 21)

1. TYJT bases their assumptions for rate inflation on a survey of rates from three other water suppliers, but ignored the actual rate history of DWSD. TYJT assumed DWSD rate increases of 4.4% annually (if water is purchased from P&B) and 2.9% annually (if water is purchased from Inlay). Based on the actual charges by DWSD to Flint, DWSD historical rates are as follows:
 - a. 10 year increase in DWSD rates to Flint: 10.5% annually
 - b. Average annual increase through 45 year history: 6.7%
2. Note that for the KWA analyses, an inflation factor has just been applied to power, labor, and chemicals. Although higher prices for labor, power, and chemicals impacts utility rates; rates are impacted by many other factors, many of which are not related to inflation. Rate inflation will likely be different than O&M inflation. Other factors impacting rates:
 - a. Debt – the amount of debt varies widely between utilities
 - b. Number of customers / quantity of water sold – there are many fixed expenses with a utility, that if are distributed amongst more users/more gallons sold will result in lower rates. Conversely, if there are fewer users or less water sold, the rates are higher. Assumptions regarding future water consumption will have a great impact on "rate inflation".
3. Unlike KWA and Flint operating expenses which will increase over time based on inflation, the cost of continued DWSD service should be based on the inflation of DWSD rates, to include the increasing cost of other DWSD expenses such as debt and the impact of reduced customers / demands in addition to increasing O&M expenses.
4. Even though there could be a one-time reduction in DWSD rates through adopting the model contract, limiting peak demands, and or changing the point of commerce; it doesn't seem reasonable to assume that subsequent annual increases will only average 4.4% through the 30 year period of analysis. This is significantly less than historical performance (yet TYJT suggests that inflation for KWA O&M expenses will increase at almost double the rate of historical indicators).

Capital Financing with Revenue Bonds (Slide 24)

1. Note that the KWA bonds will be general obligation bonds backed by the member counties.
2. The 2009 KWA Study assumed 6%, 25 year financing. The interest rate for planning was reduced in the 2012 Study update to 5%, which is still higher than if bonds were sold today.
3. Financial consultants determined the charges for purchasing capacity in the KWA supply based on the estimated project cost plus appropriate financing costs. Based on 60 units of capacity, \$538,764,000 will be generated for repayment of debt and project costs using the capacity charges in the KWA capacity agreement.

25 years * 60 units * \$355,300 / unit =	\$532,950,000
3 years * 60 units * \$32,300 / unit =	\$ 5,814,000
	\$538,764,000
4. For a KWA project cost of \$272,421,558, total P&I is \$483 million. The difference of \$55,500,000 is available for financing expenses (capitalized interest, bond issuance costs, etc.) and additional contingencies.
5. Bond holder reserve is not a requirement for general obligation bonds.
6. TYJT assumed that 3% interest would be earned on the bond holder reserve during the 25 year bond period. Current interest rates are less than 1% and it seems inappropriate to assume such a high rate will be earned on retained funds.
7. Bondholder reserve, if provided, should be applied against the last couple of P&I payments. The TYJT did not apply it. This will reduce their project costs.

KWA Construction (Slides 26 through 29)

TYJT has indicated that the KWA construction cost estimate is too low. The primary differences in cost estimates for the project appear to be the following components:

1. Pump Stations (Slide 27) – The TYJT estimate for the pump stations is more than double that used by the KWA (\$54,573,314 vs. \$24,618,080). KWA estimates were based on actual construction costs from recent projects completed by Genesee County within the last eight years.
 - a. 32mgd water pump station including two 10 MG ground storage tanks – \$13.4 million
 - b. 80 mgd wastewater pump station, 50 feet deep wetwell – \$8.3 million
 - c. 30 mgd wastewater pump station, 50 feet deep wetwell – \$9.4 million

The KWA budgeted amount seems reasonable for two pumping stations as currently planned and to be constructed in rural areas (not southeast Michigan).

2. Redundant Power – There is no need for redundant power; other provisions will provide reliability of supply.
3. Land – Preliminary engineering has continued so earlier budgets established for planning for land acquisition can be greatly reduced. Options have been obtained on all properties which must be

purchased, so purchase prices are known. It will be necessary to obtain easements for only two miles of pipeline construction. All land costs are now estimated at \$1.25 million.

4. Engineering, Legal, Administration & Contingencies

- a. The October 2012 KWA estimate provided an allowance of 25% of construction cost to cover engineering, legal, administration, and contingencies (ELAC). This was reduced from the 38% allowance used in the 2009 Study because ongoing planning and design have firmed up many of the details of the project, including:
 - i. The intake design has been completed and all regulatory permits obtained.
 - ii. The transmission main route has been determined. Meetings with road agencies have firmed up the requirements for construction and restoration within rights-of-way. Environmental review and permitting are in process.

- b. TYJT costs for Intake Crib, Pump Stations, and Transmission Mains (Slide 30) include a 30% allowance for ELAC. These allowances (from Slides 26 through 28) total \$72,139,566. In addition, Slide 30 provides the following additional ELAC costs in the project total:

Design Engineering / Pump Stations	\$16,939,581
Construction Management	\$14,434,410
Administration	\$ 349,440
Legal	\$ 831,000
Total	\$32,554,431

- c. Combining this with the \$72,139,566 totals \$104,693,997 or 43% of the estimated construction cost. We believe that such a high allowance for ELAC is not appropriate for a project of this magnitude where preliminary engineering and some design have already been completed.

Cost Comparison (Slide 30)

1. The TYJT pump station price is too high based on costs of similar projects; costs used by KWA are based on costs of recent local projects. The KWA estimate is believed to be sufficient for the proposed pumping stations.
2. Redundant power is not required; this does not need to be included in the TYJT estimate.
3. Land for LHPS – actual price is \$360,000
4. Design Engineering / PS and Transmission – KWA included engineering in the 25% ELAC allowance included in the \$207,752,895 estimated cost of transmission mains; TYJT included engineering in their 30% ELAC allowance included in the \$218,811,559 estimated cost. By adding \$16,939,581 for design engineering, \$14,434,609 for construction administration, \$349,440 for administration, and \$831,000; it seems that ELAC is being “double-counted”. The TYJT 43% allowance for ELAC seems unwarranted for a project with a great deal of preliminary and design engineering completed. The 25% KWA allowance is believed to be sufficient.
5. Easements and land (other than LHPS) should total \$1,140,000, based on current options and specific needs for easements.

Other Considerations – Redundancy / Reliability (Slide 33)

1. **Unfunded Mandates/ Future Regulations**
 - a. The proposed KWA supply will deliver raw water; it is not anticipated to be affected by future changes to regulations. Regulations will impact the City of Flint with respect to treatment and/or distribution of finished water. The City will be subject to these requirements with any of the DWSD blending options, just as they will be responsible for them if supplied by KWA. Some compliance costs may actually be less with the higher quality Lake Huron water rather than Flint River water as the source.
2. **State Goals**
 - a. The TYJT presentation indicates that creation of a new raw water supply is contrary to the governor's goals as suggested. However, the development of a new raw water supply provides new opportunities. Communities in Sanilac, St. Clair, and Lapeer counties will have the option to join a regional water supply and replace their small local supplies where limited supplies and high concentrations of arsenic have been a concern. The new water supply also provides great economic development opportunities. The raw water supplied by KWA will make a new commodity, raw water, available to the region. A large, low-cost supply of raw water can be a valuable resource for industries and agribusinesses. The development of a new water supply will also create construction jobs through the short term period of building the new water supply and subsequently over a longer period as new businesses and industries are developed in the area.
 - b. The City of Flint and area communities will benefit as permanent jobs are created for operating and maintaining the local treatment facilities.
3. **Redundancy**
 - a. We agree that the KWA and DWSD options are similar with respect to redundancy. Both provide the primary water supply; customers are responsible for their backup supply.

Other Considerations – Cost Slide 34

1. TYJT indicates that the DWSD 8 mgd supply option is the least cost alternative.
 - a. The TYJT analysis does not include the cost of needed upgrades to the City's WTP or increased operating costs in their analysis. During summer months, water from the river will need to be softened before blending. More than half of the water supplied will be provided from the river. When the cost of upgrades to the WTP and the increased operating costs (for softening) are added to the TYJT analysis, the KWA option is less than the DWSD 8 mgd option.
2. For any of the DWSD "blending" options, upgrades will need to be made at the WTP to provide for continuous, reliable operation and compliance with new surface water treatment rules. Increased capital and operating costs for treating water from the river should be added to the TYJT costs for comparison with the other options.
3. Water from the river will require greater effort to treat than water from Lake Huron (more chemicals, power, and residuals). The TYJT analysis shows about the same O&M costs for the Flint WTP, regardless of water source. It seems that the WTP O&M costs for the KWA options should be reduced to reflect the savings from treating Lake Huron water.

4. The TYJT presentation noted that the KWA analysis did not include allowances for mechanical and process improvements within the planning period. The KWA will supply raw water. The facilities consist of pipe, pumps, and a tank. There are no treatment facilities which would be susceptible to future regulatory changes. The only improvements that seem likely would be the need to provide additional capacity. Capacity expansion is planned to be financed through capacity charges to new users.
5. The provision for redundant connections between the City's water system and the GCDC system was included in the most recent water supply agreement between the two, in 2011. Although not a KWA cost, the cost of the redundant connections should be considered with all options.
6. The \$2.3 million budgeted for land by KWA was intended to cover all land requirements. Since the October update, options have been obtained on all land to be purchased and the locations of easements needed has been finalized. Total land costs are now estimated to be about \$1.5 million.
7. The 2004 study included a 47% allowance for engineering, legal, administration, and contingencies (ELAC). The 2009 study reduced the allowance for ELAC to 37% because many of the details since the 2004 conceptual study had been better defined. For the October 2012 update, the allowance for ELAC was reduced to 25% because continued planning and preliminary engineering further addressed details from the earlier concepts.
 - a. The detailed design (plans and specifications) and permitting have been completed.
 - b. The transmission main route has been finalized. Meetings with road agencies have established requirements for construction and restoration within road rights-of-way. Environmental permitting is in process. The primary remaining unknown is pipe sizing, which is largely dependent on Flint's participation.

It is our experience that the 25% ELAC allowance is appropriate for a project of this magnitude at this stage in the planning / design stage. The 43% ELAC allowance recommended by TYJT is excessive for a project in the design phase.

8. Flint's WTP as a backup to the KWA will be less difficult to provide for than the current arrangement as a backup to DWSD. We believe there is potential for challenges with chemistry and treatment for the proposed DWSD blending options, too.
9. It doesn't seem that oversizing the KWA capacity is a good solution for the city's water loss problems, if that is what is being suggested.
10. Yes, it would be nice if the KWA system could be constructed to firmly determine its cost and time to complete before making a decision about water supply alternatives. However, a decision is needed regarding Flint's participation so that the sizing and design can be completed, before it can be built.